

**Semiconductor Package Including Leadframe Roughened  
Using Chemical Etchant To Prevent Separation  
Between Leadframe And Molding Compound**

5

Saravuth Sirinorakul

Arlene V. Layson

Chua Yee Heong Terence

**Abstract**

A semiconductor package contains a metal leadframe that has been specially  
10 treated by roughening it with a chemical etchant. The roughening process enhances the  
adhesion between the leadframe and the molten plastic during the encapsulation of the  
leadframe and thereby reduces the tendency of the package to separate when exposed to  
moisture and numerous temperature cycles. In one embodiment, the leadframe made of  
15 copper is roughened with a chemical etchant that contains sulfuric acid and hydrogen  
peroxide.